

REMARKS

Reconsideration of the pending application is respectfully requested on the basis of the following particulars:

In the specification

The specification has been amended to more clearly describe an aspect of the present invention, as shown at least in Figs. 1, 3-9, and 11-19, wherein the frame of the fan structure has an inner peripheral wall having an inlet and an outlet, and the control elements (blades) are fixed to the peripheral wall extending radially inward, and wherein each of the control elements (blades) has an outer edge fixed to the peripheral wall, and a free inner edge. The amendments also provide literal antecedent basis for the claims as amended. No new matter has been added.

Rejection of claims 1-3, 9, and 11 under 35 U.S.C. § 102(b)

Claims 1-3, 9, and 11 presently stand rejected as being anticipated by either Rao (U.S. 3,883,264) or Kohama et al (U.S. 4,985,489). This rejection is respectfully traversed for the following reasons.

Claims 1 and 11, independent claims, have been amended to more clearly set forth the present invention. Claims 1 and 11 are amended to more clearly describe the configuration of the control elements (blades), which are 1) radially projected (inward); 2) have an outer edge fixed to the peripheral wall of the frame; and 3) have a free inner edge.

It is respectfully submitted that neither Rao nor Kohama teach or suggest each and every element set forth in claims 1 and 11, and therefore claims 1 and 11 are not anticipated by either Rao or Kohama.

Rao teaches a stator assembly in which a plurality of blades are fixed between an outer rim and an inner rim (hub). The stator is positioned downstream of a fan rotor. Because the stator blades are connected between an inner rim and an outer rim (that is not a part of the fan frame) Rao does not disclose or suggest blades that have an outer edge

that is *connected to the peripheral wall of the frame*, because outer edges of the blades are connected to the outer rim 18 and not to the inner peripheral wall of the frame which supports the fan.

Rao also fails to disclose or suggest that the blades have free inner edges, because inner edges are fixed to the inner hub, and therefore are not free.

Additionally, Rao provides no teaching or suggestion that the stator blades are arranged and configured so that a fluid flowing out from said outlet is directed to *flow radially inward.*, as required by claim 1 of the present application. While Rao discusses *wake interaction* that travels radially inwardly, this appears to refer simply the interaction of blades and vanes, wherein as the blades turn relative to the vanes, “vane-blade interactions [are] similar to that in a pair of scissors.” (Rao; col. 2, lines 1-3). Thus, while an intersection point of a blade and a vane may move inwardly as the blade moves relative to the vane (similar to a pair of scissors), there is no teaching or suggestion that *air flow* is directed radially inwardly *by the vanes*.

Kohama teaches an annular rim (projection 5) “extended around the circumferential end portion of the outlet port 7.” (Kohama; col. 2, lines 43-44). Kohama provides no teaching or suggestion of any arrangement other than a single annular rim (projection 5). Therefore, Kohama does not disclose or suggest a plurality of blades as required by claims 1 and 11 of the present application.

Kohama’s annular projection 5 is not a blade (as set forth in dependent claim 2) or a rib (as set forth in dependent claim 3), and would not be construed as such by a person skilled in the art. Moreover, Kohama’s *single* annular projection 5 cannot be construed as a *plurality* of fluid control elements as required by claims 1 and 11.

While a single embodiment shows a “plurality of projections 5d which are arranged circularly around the outlet port with a ring 9 provided at the trailing tips of the projections 5d” (Kohama; col. 2, lines 57-59), the projections 5d are not radially inwardly extended. Instead, the projections 5d extend axially and rearward from the fan housing, and are simply stand-offs that support a single annular rim (ring 9).

Accordingly, for at least these reasons Rao and Kohama fail to teach or suggest each and every element set forth in claims 1 and 11, and therefore claims 1 and 11, along with the dependent claims 2, 3, 7, and 9, are allowable over the cited references. Accordingly, the withdrawal of the rejection is respectfully requested.

Rejection of claim 7 under 35 U.S.C. § 103(a)

Claim 7 presently stands rejected as being unpatentable over Rao in view of “design choice”. This rejection is respectfully traversed for the following reasons.

Claim 7 depends from claim 1. As discussed above, neither Rao nor Kohama disclose or suggest each and every element recited in claim 1. It is respectfully submitted that “design choice” fails to supplement the deficiencies of Rao (and Kohama) discussed above and that, therefore, Rao in view of “design choice” fails to support the rejection of claim 7. Therefore, it is respectfully submitted that claim 7 is allowable over the cited references, and the withdrawal of this rejection is requested.

Conclusion

Every effort has been made to place the application fully in condition for allowance, and to remove all issues raised by the Examiner in the Official Action.

In view of the amendments to the claims, and in further view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is requested that claims 1-3, 7, 9, and 11 be allowed and the application be passed to issue.


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Examiner: **Theresa Trieu**
Art Unit: 3748

If any issues remain that may be resolved by a telephone or facsimile communication with the Applicant's attorney, the Examiner is invited to contact the undersigned at the numbers shown.

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Respectfully submitted,


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